

IN THE CLAIMS:

Page 1, line 1, please delete "PATENT CLAIMS" and insert therefore --What is Claimed is:--

Please cancel Claims 1-16 and **PCT Substitute** Claims 1-15 and add the following new claims:

Claims 1-16 (Cancelled)

17. (new) A solid substrate surface having (i) a defined layer of polymers and/or oligomers or (ii) a defined layer system of polymers and/or oligomers having controlled chain length and/or polydispersity on solid substrate surfaces.

18. (new) A solid substrate surface as in claim 17, wherein said defined layer or defined layer system is produced by ATRP-polymerization.

19. (new) A solid substrate surface having bonded thereto a compound of general formula (1)

A-L-I (1)

wherein

A is an anchor group bonding the compound to the solid substrate surface

I is a group for initiating a reaction which proceeds according to an ATRP-mechanism, and

L is a link between the groups A and I, as initiator for an ATRP-mechanism.

20. (new) Solid substrate surface with a polymer and/or oligomer layer, produced by a process comprising the following steps:

- a) providing and optionally preparing a solid substrate surface,
- b) bonding to the solid substrate surface an initiator which includes a group I for initiation of a reaction which proceeds according to an ATRP-mechanism,
- c) subsequent to step b), carrying out on the solid substrate surface a first ATRP-polymerization initiated by the initiator, with radically polymerizable (a) monomers, (b) macromonomers, or (c) mixtures thereof, so that a first layer of polymers and/or oligomers is formed on the solid substrate surface.